UNITED STATES PATENT AND TRADEMARK OFFICE

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Ex parte HOWARD W. LUTNICK, BIJOY PAUL,
and MICHAEL SWEETING

_____

Appeal 2015-002531
Application 12/406,260
Technology Center 3600

_____

Before HUBERT C. LORIN, BIBHU R. MOHANTY, and
BRADLEY B. BAYAT, *Administrative Patent Judges*.

BAYAT, *Administrative Patent Judge*.

DECISION ON APPEAL[1]

STATEMENT OF THE CASE

Appellants[2] appeal under 35 U.S.C. § 134(a) from the Examiner's
final rejection of claims 1–21, 23–41, and 43–49. We have jurisdiction
under 35 U.S.C. § 6(b).

We AFFIRM.

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[1] Our decision references Appellants' Appeal Brief ("Appeal Br.," filed
Sept. 29, 2014), Reply Brief ("Reply Br.," filed Jan. 7, 2015), and the
Examiner's Answer ("Ans.," mailed Nov. 7, 2014) and Final Office Action
("Final Act.," mailed Aug. 30, 2013).
[2] Appellants identify "CFPH, L.P." as the real party in interest (Appeal Br.
4).

Appellants' claimed invention relates to exchange trading financial instruments. (Spec. 15:19–25, 16:5–8). Claim 1, reproduced below, is illustrative of the subject matter on appeal.

1. An exchange system comprising:

a data bus, wherein the data bus communicatively coupling an event engine and a matching engine, and wherein the data bus is configured to deliver instructions from the event engine to the matching engine;

the matching engine configured to:

receive indications of orders, wherein each order defines a respective side of a trade for a financial instrument;

add each of the orders to a respective one of a queue of buy orders and a queue of sell orders for the financial instrument;

determine that at least a first order in the queue of buy orders and a second order in the queue of sell orders match, and

execute a trade that fulfill the first order and the second order;

the event engine configured to:

receive an indication of an occurrence of an event;

in response to receiving the indication of occurrence of the event, determine that an adjustment to an order is conditioned on at least one criteria associated with the occurrence;

determine that the at least one criteria associated with the occurrence on which the order is conditioned is satisfied; and

in response to the determination, transmit, through the data bus, to the matching engine, an indication to adjust the order.

THE REJECTIONS

The Examiner relies upon the following as evidence of
unpatentability:

Duesterwald	US 2003/0192035 A1	Oct. 9, 2003
Marks de Chabris	US 2007/0067231 A1	Mar. 22, 2007
Nafeh	US 2007/0233594 A1	Oct. 4, 2007
Walsky	US 2008/0097893 A1	Apr. 24, 2008

The following rejections are before us for review:

1.   Claims 1–21, 23–41, and 43–49 stand rejected under 35 U.S.C. § 101
as being directed to ineligible subject matter.

2.   Claims 1, 12–19, 24–26, 28–32, and 43–47 stand rejected under 35
U.S.C. § 103(a) as being unpatentable over Nafeh and Walsky.

3.   Claims 2, 10, 11, 20, 21, 39, 40, and 48 stand rejected under 35 U.S.C.
§ 103(a) Nafeh, Walsky, and Duesterwald.

4.   Claims 3–9, 23, 27, 33–38, 41, and 49 stand rejected under 35 U.S.C.
§ 103(a) Nafeh, Walsky, Duesterwald, and Mark de Chabris.

ANALYSIS

Non-statutory Subject Matter

The Supreme Court has set forth "a framework for distinguishing
patents that claim laws of nature, natural phenomena, and abstract ideas
from those that claim patent-eligible applications of those concepts." *Alice*,
134 S. Ct. 2347, 2355 (2014) (*citing Mayo*, 132 S. Ct. 1289, 1296–97
(2012)). According to the Supreme Court's framework, it must first be
determined whether the claims at issue are directed to one of those concepts
(i.e., laws of nature, natural phenomena, and abstract ideas) *Id.* If so, a

second determination must be made to consider the elements of each claim both individually and "as an ordered combination" to determine whether the additional elements "transform the nature of the claim" into a patent-eligible application. *Id.* (quoting Mayo, 132 S. Ct. at 1298).

To that end, regarding the first part of the *Alice* inquiry, the Examiner finds that the claims are directed to "the abstract idea of a method of trading on an exchange using 'engines'" and therefore ineligible subject matter under 35 U.S.C. § 101 (Ans. 4). With regard to the second part of the *Alice* inquiry, the Examiner determines that the "use of a generic 'exchange' or public 'exchange' with an event engine and matching engine does not limit the claims sufficiently or add concrete ties to make the claims less abstract." (*id.* at 4–5). The Examiner has applied this analysis to all the claims in the rejection.

Appellants first argue that "the Examiner has made a factual finding with no evidence at all in violation of the Administrative Procedure Act" (Reply Br. 10). According to Appellants, the Examiner does not identify "any of the court specified categories of abstract ideas or give any reasoning at all to justify the claim of abstractness" (*id.*).

We do not agree. As noted above, the Examiner identifies the abstract idea to which the claims as a whole are directed. This is sufficient to identify the judicially excluded category under *Alice*. There is no requirement to make factual findings or produce evidence in making a rejection under 35 U.S.C. § 101. *See e.g.*, "July 2015 Update: Subject Matter Eligibility" to the "2014 Interim Guidance on Subject Matter Eligibility (2014 IEG) published on Dec. 16, 2014 (79 Fed. Reg. 74618)":

> The courts consider the determination of whether a claim is
> eligible (which involves identifying whether an exception such
> as an abstract idea is being claimed) to be a *question of law*.
> Accordingly, courts do not rely on evidence that a claimed
> concept is a judicial exception, and in most cases resolve the
> ultimate legal conclusion on eligibility without making any
> factual findings.

Id. at 6 (emphasis added). Evidence may be helpful in certain situations where, for instance, facts are in dispute. But it is not always necessary. It is not necessary in this case. We note that the Appellants have put forward no rebuttal evidence showing claim 1 is *not* directed to an abstract idea.

Appellants' second argument is that the invention "uses specifically arranged technology of engines to perform concrete actions of trading." (Reply Br. 10). According to Appellants, "[t]his specific application of trading using engines is not manifestly abstract and therefore is not an abstract idea." (*id.* at 11).

We do not agree. The Court in *Alice* also addressed claims directed to electronic trading — specifically trading through a third-party intermediary. The Court concluded that the claims were "drawn to the concept of intermediated settlement" and that "intermediated settlement, like hedging [in *Bilski*], is an 'abstract idea' beyond the scope of § 101." *Alice* at 2356. Accordingly, Appellants' argument does not apprise us of error in the Examiner's determination that the claims are directed to an abstract idea.

Third, Appellants argue that "the Examiner fails to show that each and every limitation of each and every claim taken both together and separately do not add significantly more than the alleged abstract idea." (Reply Br. 11).

Fourth, Appellants contend that the claims "recite a novel and non-obvious structure for an exchange system or method of operating an exchange." (*id.*). According to Appellants, "[a]s described in the specification, these arrangements improve over traditional exchanges and therefore add significantly more to the alleged abstract idea of trading on an exchange using engines." (*id.*).

Appellants' argument regarding "novel and non-obvious structure" is not a persuasive argument. An abstract idea does not transform into an inventive concept just because the prior art does not disclose or suggest it. We also note that the Appellants have not pointed to any specific improvement in computer technology or any other technology or technical field described in the Specification.

As in *Alice*, "the claims do not, for example, purport to improve the functioning of the computer itself," "[n]or do they effect an improvement in any other technology or technical field." *Alice* at 2359. As in *Alice*, the functions performed by the claimed engines amount to "basic functions of a computer." (*id.*). For example, in the method of claim 16, the recited functions of receiving conditions, receiving indications, determining events, and transmitting instructions to adjust orders through a bus, matching orders, and executing trades are all well-understood, routine, conventional activities previously known to the industry. Claim 32 similarly recites steps of receiving an indication, determining conditions, and transmitting instructions to adjust an order through a bus. As in *Alice*, "each step does no more than require a generic computer to perform generic computer functions." *Alice* at 2359. *Cf. id.* ("[T]he use of a computer to obtain data,

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adjust account balances, and issue automated instructions . . . are 'well-understood, routine, conventional activit[ies]' previously known to the industry.") The Specification supports the view that the computer implementation is purely conventional. *See* Specification page 9, lines 27–29 ("the various processes described herein may be implemented by, e.g., appropriately programmed general purpose computers, special purpose computers and computing devices.").

Regarding the claimed "matching engine" the Specification discloses that matching engine 207 "may include general purpose processors configured to matching orders . . . via hardware and/or software" (Spec. 19:20–23). Regarding the claimed "event engine" the Specification similarly discloses that "event engine 213 may include a processor, a memory, and/or any other component." (Spec. 24:4–8). The matching and event engines may be implemented in a single general purpose computer. *See* Spec. 28:25–26 ("a bus may directly couple event engine and matching engine in a same machine."). Adjusting an order may be implemented by simply accessing and updating a memory location in the general purpose computer. *See* Spec. 30: 24–26 ("memory location may be accessed (e.g., by the event engine or some other component) and information may be read and/or changed to adjust an order." Executing software and allowing communication between software components via memory locations is "one of the most basic functions of a computer." *Alice* at 2359. Indeed, nearly every computer will include a data bus configured to allow communication between programs via memory locations. *Cf. Alice* at 2360 ("Nearly every computer will include a 'communications controller' and 'data storage unit'

capable of performing the basic calculation, storage, and transmission functions required by the method claims.")

Thus, "the claims at issue amount to 'nothing significantly more' than an instruction to apply the abstract idea [] using some unspecified, generic computer." *Alice* at 2360. We reach the same conclusion as to system claims 1 and 49. As in *Alice*, "[t]he method claims recite the abstract idea implemented on a generic computer; the system claims recite a handful of generic computer components configured to implement the same idea." *Alice* at 2360. "[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention. Stating an abstract idea 'while adding the words 'apply it'' is not enough for patent eligibility." *Alice* at 2358.

Accordingly, Appellants' arguments do not apprise us of error in the rejection under 35 U.S.C. § 101.

Obviousness

Independent claim 1 requires, *inter alia*, an event engine configured to "in response to receiving the indication of occurrence of the event, determine that an adjustment to an order is conditioned on at least one criteria associated with the occurrence" (Appeal Br. 54, Claims App.). Independent claims 16, 32, and 49 contain similar limitations.

The Examiner finds the above limitation of claim 1 disclosed in Nafeh at paragraphs 85–91 and 471–480 (Final Act. 10). The Examiner finds an identical limitation in claim 49 disclosed in paragraphs 488–493 of Nafeh (*id.* at 39).

Appellants argue that the Examiner has not established a prima facie showing of unpatentability (Appeal Br. 13–16, 50–51). According to Appellants, "a conditional contract (i.e., a contract that pays out in some instances) is not a teaching or suggestion regarding an adjustment to an order" (*id.* at 16).

In response, the Examiner cites to paragraphs 8, 17, 54, and 88 of "Mather" disclosing, e.g., a trading widget, electronic exchange, and an order placement module (*see* Ans. 9–13).

We are persuaded by Appellants' arguments. A rejection based on § 103 clearly must rest on a factual basis. The Examiner has the initial duty of supplying the factual basis for the rejection and may not resort to speculation, unfounded assumptions, or hindsight reconstruction to supply deficiencies in its factual basis.

Based on the record before us, the Examiner has not shown where and how these limitations are found in the prior art. As noted above, the final rejection merely cites to paragraphs 85–91, 471–480, and 488–493 of Nafeh without any further explanation (aside from a note regarding the Examiner's interpretation of "event"). We have reviewed the cited paragraphs in Nafeh and we fail to see how they teach the disputed claim limitation. And in the Answer in response to Appellants' arguments, the Examiner erroneously cites to and relies on various portions of "Mather" (*see* Ans. 10–13), which is not of record as prior art in the rejections before us.

Accordingly, we do not sustain the rejection of independent claim 1, and independent claims 16, 32, and 49, which contain a similar limitation and stand rejected based on the same deficient findings as in claim 1. For

the same reasons, we do not sustain the rejections of dependent claims 2–15, 17–21, 23–31, 33–41, and 43–48. *Cf. In re Fritch*, 972 F.2d 1260, 1266 (Fed. Cir. 1992) ("dependent claims are nonobvious if the independent claims from which they depend are nonobvious").

<div align="center">DECISION</div>

The Examiner's rejection of claims 1–21, 23–41, and 43–49 under 35 U.S.C. § 101 is affirmed.

The Examiner's rejections of claims 1–21, 23–41, and 43–49 under 35 U.S.C. § 103(a) are reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

<div align="center">AFFIRMED</div>